



The **GLOBE** Program

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# GLOBE Africa Consortium; developing networks and sustainability.

11<sup>th</sup> Annual Conference of the GLOBE Program

San Antonio, Texas USA

30<sup>th</sup> July to 4<sup>th</sup> August 2007

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# OUTLINE



- Introduction
- GLOBE Africa Consortium and the International Network.
- The challenges of implementing the GLOBE Program in African countries
- Some success models in Globe Programs Africa
- Networking in GLOBE Africa Consortium (GAC) a vehicle for developing a self-supporting and sustainable program.
- GAC and the Next Generation Globe (NGG).

# The GLOBE Program



Students  
collaborate  
with scientists



Hands-on science



Atmosphere/Climate  
Hydrology  
Soil  
Land Cover/Biology  
Phenology  
+ Earth System  
Science Projects, e.g.,  
Seasons and Biomes  
and Watersheds



<http://www.globe.gov>



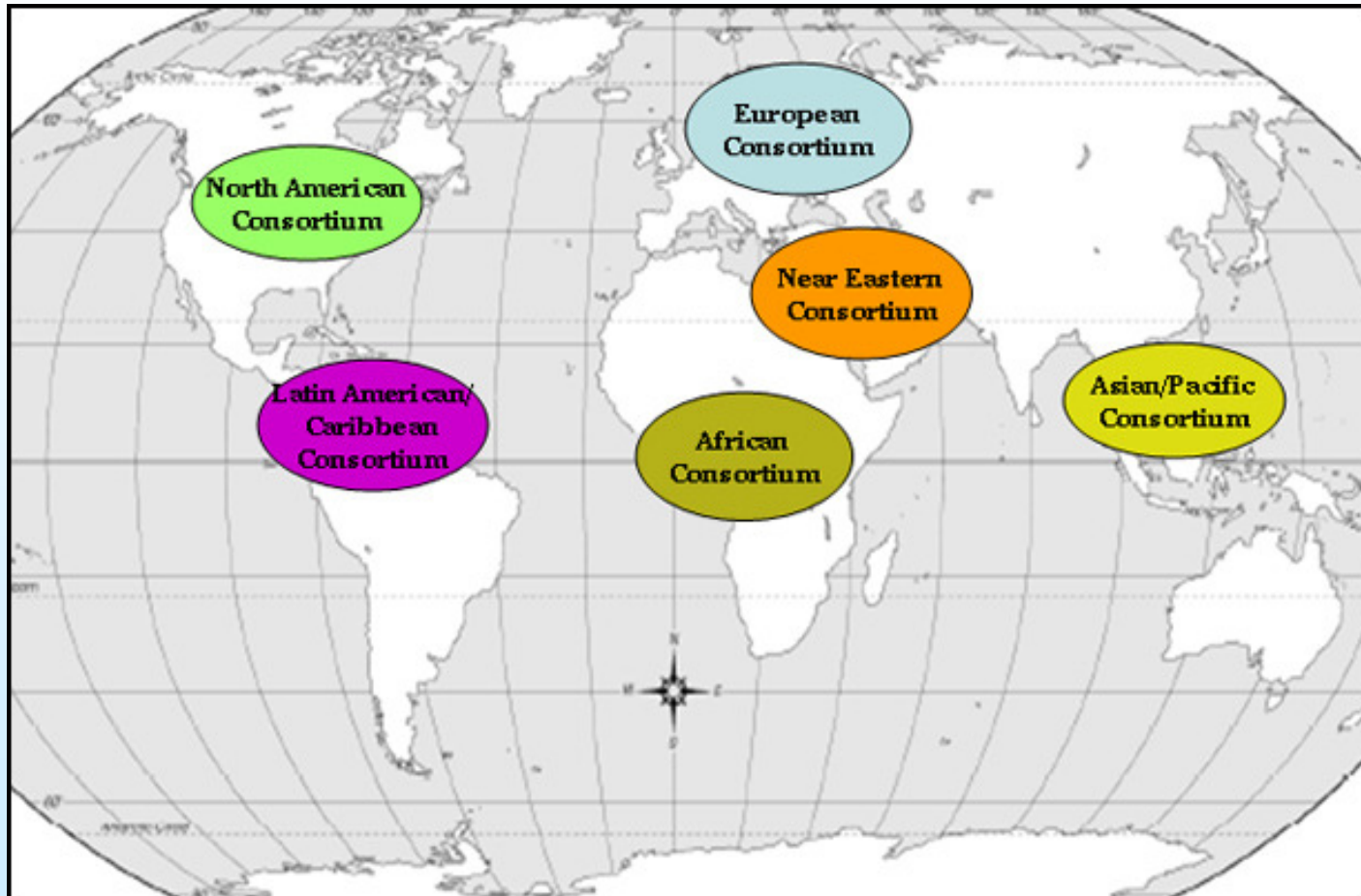
International  
Program  
in 100+ countries



Over 16 million  
environmental  
measurements taken



# GLOBE Regional Consortia

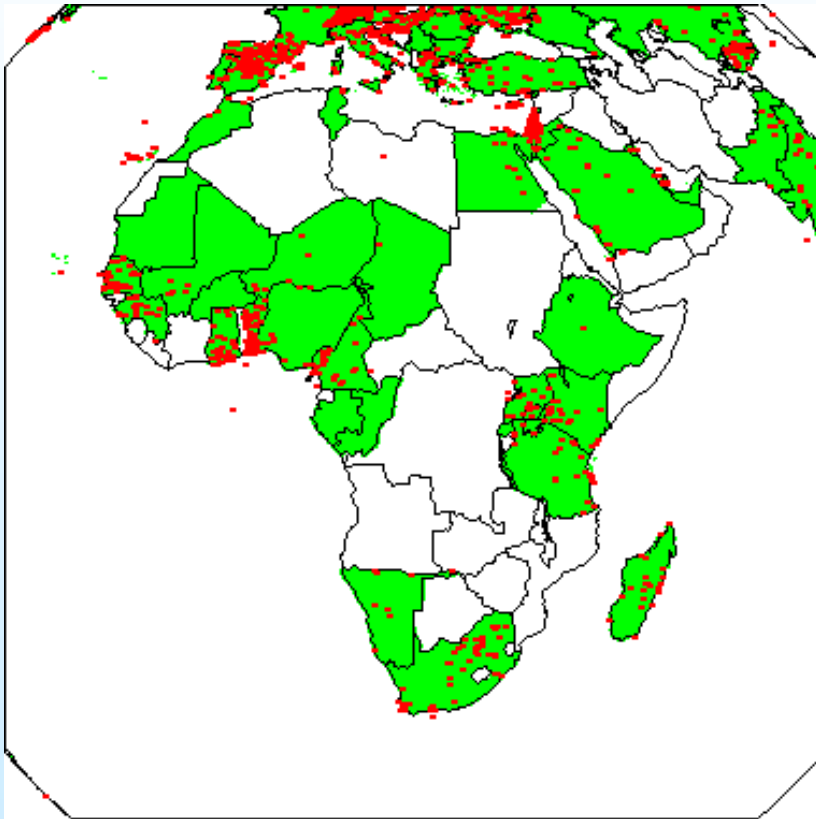


# Impact Around the World

<b><u>GLOBE Region</u></b>	<b><u>Schools</u></b>	<b><u>Teachers</u></b>	<b><u>Data</u></b>
• Africa	562	905	911,935
• East Asia/Pacific	1,422	1,974	956,244
• Europe/Eurasia	2,733	4,236	6,829,031
• Latin America/Caribbean	485	674	392,369
• Near East	267	359	276,035
• North America	12,797	26,958	5,786,312

Data gathered on 21 September 2006

# GLOBE in Africa: Some Stats



**GLOBE Partners: 26**

Discussions with Algeria, Burundi, Guinea-Bissau, and Malawi to join

**GLOBE Teachers trained:**

Over 950

**GLOBE Schools represented:**

Over 550

**Number of data reported:**

Over 900,000

Caveat: not all schools and teachers are participating

## **Mission of GLOBE Africa Consortium**

To promote quality science education and research in the understanding of the Earth as a System in order to enhance sustainable natural resources management among its member countries.

# Vision of GLOBE Africa Consortium

To bring African scientists, teachers, students and stakeholders in education into learning communities in order to enhance collaborative inquiry-based investigation of the environment and the earth as a system in line with the vision of the Next Generation GLOBE (NGG).





# Africa Highlights

- **Regional workshops and meetings in Niger, November 2005 and in Uganda, January 2006, and Nigeria, August 2006**
  - Resulting in 13 Master Trainers and 13 in the pipeline (French and English speaking)
  - Representatives from 19 countries
  - **Annual GLOBE Meeting and teacher workshop in South Africa in April 2007 happening now (23-27 April 2007)**
- **GLOBE Africa Consortium formed**
  - Constitution
  - Regional Web site in development
- **Regional Training Center inaugurated in Yaoundé, Cameroon, November 2005**
- **Cameroon National Science Teacher Association formed**
  - Regional model



# Opportunities

“The quintessentially ideal program for involving kids in science”

*Nobel Laureate, Dr. Leon Lederman*

- GLOBE alumni a resource for GLOBE Africa consortium
- Learning despite challenges.





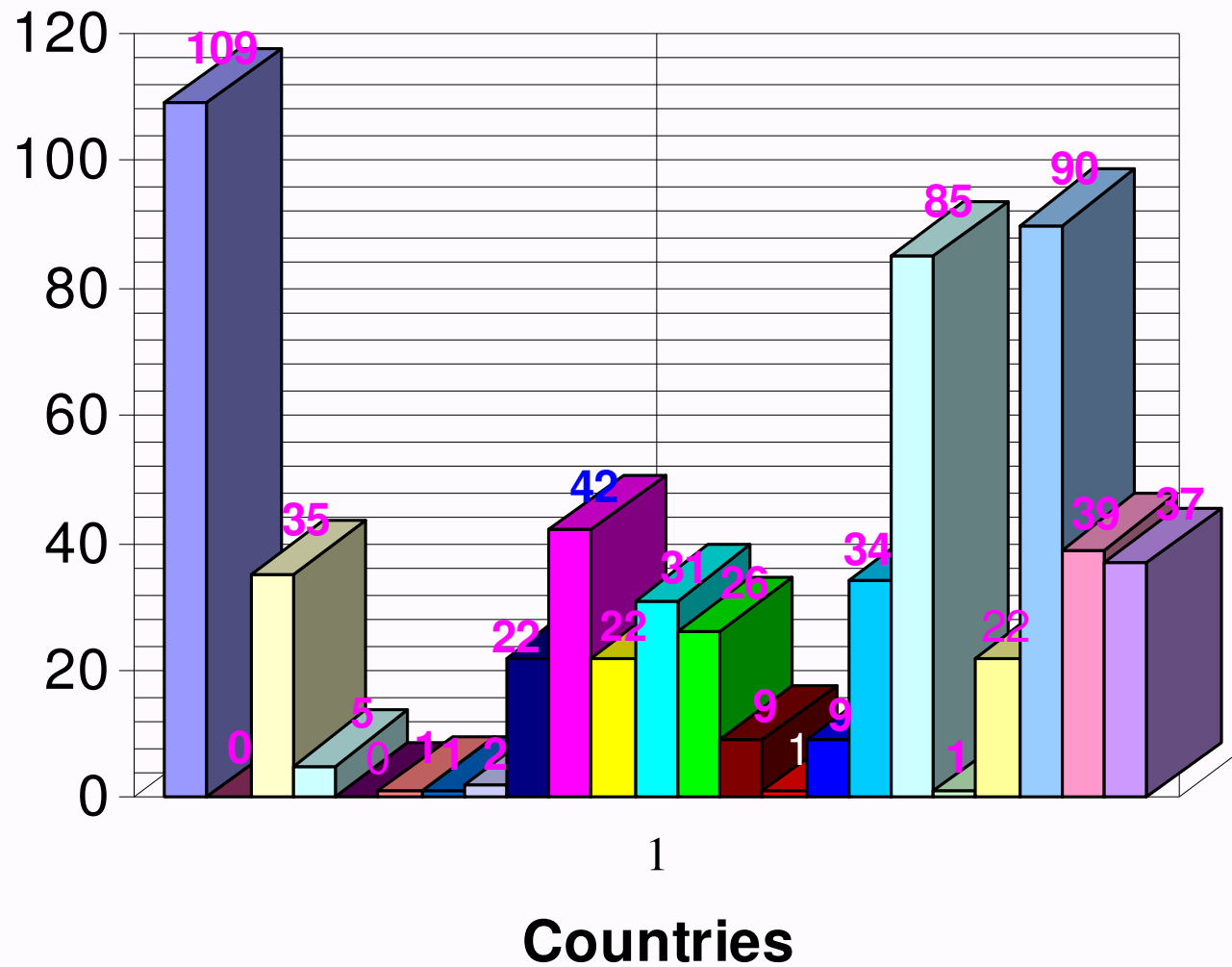
# GLOBE: Students Learning Through Research

- Local and regional projects initiated by GLOBE country partners and regional consortia with local schools, scientists, and resources
- Themes include:
  - Health
  - Food production
  - Weather and climate
  - Climate change
  - Water quality
  - Indigenous knowledge systems



# GLOBE in Africa

Number of  
schools



- Benin
- Burkina faso
- Cameroon
- Cape Verde
- Chad
- Congo
- Ethiopia
- Gabon
- Gambia
- Ghana
- Guinea
- Kenya
- Madagascar
- Mali
- Mauritania
- Namibia
- Niger
- Nigeria
- Rwanda
- Senegal
- South Africa
- Tanzania
- Uganda

# Challenges for Implementing GLOBE in Africa

- Resources – equipment, printed material, computer & Internet access
- Effective communication
- Incentives for teachers and students



- **Ministry and school administration support**
  - **Frequently changing officials**
  - **Teachers frequently change school locations**
- **Perceived as U.S. donor program**
- **Lack of diversified funding base for local and national implementation**
- **Engaging African universities and National Meteorological Services**

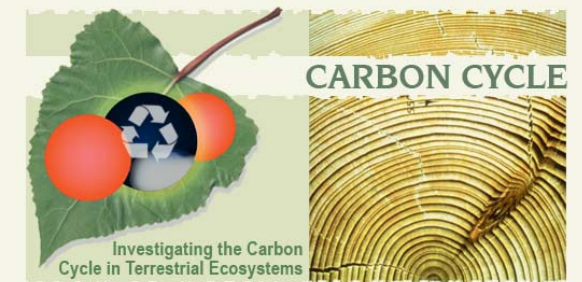
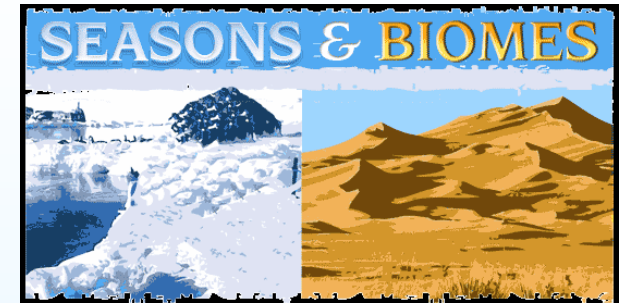
# Sustainability in GLOBE Africa

- Levels of sustainability of GLOBE :country, regional .....
- Effective communication channels
- The partner agency must show prove of commitment
- A sustainability clause forms part of the package of the bilateral agreements.
- The institutional memory vacuum created needs to be filled.
- Continuing interventions are necessary.
- Formation of partnerships with the institutions.
- Competitions and award schemes



# Challenges in participating in the 4 new projects

- GLOBE projects directly tied to and integrated with NSF and NASA-funded Earth system science programs (ESSPs)
  - Seasons and Biomes
  - Carbon Cycle
  - Watersheds
  - From Local to Extreme Environments (FLEXE); exploring deep sea environments





# GLOBE Learning Expedition 2008



**In  
South Africa  
  
See  
You  
There**

# Thank you!

[www.globeinafrica.org](http://www.globeinafrica.org)